

Abstract

Color 3D image display devices that show realistic 3D images using the virtual light points fields. Color-intensity and directions of the virtual light points fields are controlled by various methods such as selection of directions of properly color-intensified light rays. For such methods, micro-pinholes, liquid crystal pinholes, varifocal micro-lens arrays and varifocal index-gradient lens, etc. are used together with high-resolution and high-speed 2 dimensional pattern-generating displays. By adding linear (reciprocating) and/or rotational motion to such 3D display makes higher resolution and view angles wider.